

```
semaphore wait, mutex1, mutex2;
mutex1 = 1; mutex2 = 1; wait = 1;
int countu1, countu2, countd1, countd2; countu1 = 0; countu2 = 0; countd1 = 0; countd2 = 0;

process P东(){
    P(S1);
    P(mutex1);
    countu1++;
    if(countu1 == 1)
        P(wait);
    V(mutex1);
    过独木桥;
    V(S2);
    P(mutex1);
    countu1--; countd1++;
    if((countu1 == 0) && (countd1 == 3))
        countd1 = 0; V(wait);
    V(mutex1);
}

process P西(){
    P(S2);
    P(mutex2);
    countu2++;
    if(countu2 == 1)
        P(wait);
    V(mutex2);
    过独木桥;
    V(S1);
    P(mutex2);
    countu2--; countd2++;
    if((countu2 == 0) && (countd2 == 3))
        countd2 = 0; V(wait);
    V(mutex2);
}
```